APPENDIX H - NIGHT OPERATIONS

H.1 - PURPOSE

To provide guidance to units and crew members engaged in unaided and aided flight training supported by AASF Los Alamitos.

H.2 - SCOPE

This Appendix is all encompassing. Crew members, passengers and support personnel are subject to the provisions contained herein.

H.3 - RESPONSIBILITIES

- Operations Officer/Briefing Officer will ensure:
- Prior to flights, that all participating crew members are qualified and current in the type of aircraft to be flown and that for NVG operations all crew members are NVG qualified and current. The only exceptions are when an SI/FI/IP/SP is conducting qualification, refresher, or currency training or a UT/IP/SP/SI/FI/NCT is conducting mission training. NVGs are signed out on the correct equipment sign-out log or hand receipt. The user's PMCS is completed IAW the ANPVS/ANVIS -10. The batteries are distributed IAW the battery usage policy stated in this SOP. When NVGs are returned they are properly stored in their storage cases and the storage cases are secured properly in Operations. Avionics will provide maintenance and inspections of NVGs as authorized.
- Avionics Technician will: Provide maintenance and inspections of NVGs as authorized. Provide security of NVGs in the NVG Shop that are under his/her control. Ensure maintenance records and log books are maintained IAW the latest appropriate guidance. Provide operations with NVGs and related equipment as required for each night's NVG operations.

H.4 - CREW DUTIES

- Unless briefed otherwise, applicable Facility standardized terminology in will be followed by all crews while under the administration of the Facility.
- The PC is responsible for assigning crew duties before each aided or unaided night flight. As a minimum the PC will brief the crew using an approved crew briefing sheet.
- The PC will brief other assignments as required, to include but not limited to the following.

H.5 - STANDARDIZED TERMINOLOGY

Standardized terminology must be established among the mission participants. Several key words and phrases are listed and defined below:

Abort	Terminate a preplanned aircraft maneuver.
Affirmative	Yes
Break	Immediate action command to perform an emergency maneuver to deviate from present ground track; will be followed by the word "right," "left," "up," or "down."
Clear	No obstacle present to impede aircraft movement along

	the intended ground track. Will be preceded by the word "nose," "tail," or "aircraft" and be followed by a direction (i.e. "left, " "right," "slide left," etc.) Also indicates that ground personnel are authorized to approach the aircraft.
Come Up/Down	Command to change the altitude up or down; normally used to control masking and masking operations.
Contact	Object in sight.
Drifting	An alert to the unintentional or undirected movement of the aircraft; will be followed by the word "right," "left," "backward," or "forward."
Execute	Initiate an action.
Fly Heading	Command to fly an assigned compass heading (this term generally is used in low-level or contour flight operations).
Go Ahead	Proceed with your message.
Hold	Command to maintain present position.
Inside	Primary focus of attention is inside the aircraft for longer than two or three seconds.
Outside	Primary focus of attention is outside the aircraft.
Jettison	Command for the emergency or unexpected release of an external load, stores, or door.
Maintain	Command to continue or keep the same.
Monitor	Command to maintain constant watch or observation.
Negative	Incorrect or permission not granted.
Negative Contact	Unable to establish communication with (followed by the name of the element) or not in sight.
Put Me Up	Command to place the P*s radios transmit selector switch to a designated position; will be followed by radio position numbers on the intercommunication panels (1,2,3,). Tells the other crew member to place a frequency in a specific radio.
Release	Command for the planned or expected release of an external load.
Roger	Message received and understood.
Say Again	Repeat your transmission.
Stand By	Wait; duties of a higher priority are being performed and the request cannot be complied with at this time.
Stop	Command to go no further; half present action.
Traffic	Refers to friendly aircraft that present a potential hazard to your current route of flight; will be followed by an approximate clock position and the distance from your aircraft with a reference to altitude (high or low).
Turn	Command to deviate from the present ground track; will be followed by the word "right," or "left," a specific heading in degrees, a bearing ("turn right 30 degrees"), or instructions to follow a well-defined contour ("follow the

	draw at 2 o'clock).
Unable	Indicates the inability to comply with a specific instruction or request.
Up On	Indicates primary radio selected; will be followed by radio position numbers on the intercommunication panels "up on 1, up on 3."

H.6 - DISORIENTATION PROCEDURE

If disorientation is encountered proceed as follows:Initiate a climb to at least 500' AHO, as weather permits. Clear the aircraft during the climb. Once reoriented, re-enter the training area. If unable to reorient yourself, request assistance from local ATC.

H.7 - STANDARDIZED RADIO CONFIGURATIONS

- Figure 1 thru figure 5 show the standardized radio configuration for Facility aircraft. The maintenance status board in Operations will indicate by an astrik (*) any aircraft that is not standardized.
- Pilots must note and familiarize themselves with any non-standard radio configuration prior to any night flight.

H.8 - CARE AND SECURITY OF NIGHT VISION GOGGLES

- NVG battery packs will be maintained by ALSE and the usage of batteries will be as follows: Batteries will be maintained in containers marked NEW, USED, or BAD. NEW batteries are unused batteries. USED batteries are batteries that have been used in NVG operations with no noted problems. BAD batteries are batteries in which the low battery indicate visor light comes on or blinks at a steady rate. New batteries will be placed in the battery compartment with a piece of tape. The tape will be white and on the compartment closest to the power cord. The battery holder containing new batteries will also be marked with a piece of white tape. Used batteries will be placed in the opposite compartment and will be the primary batteries and will be used until the low battery light illuminates. When a crew member returns from flying NVG they will remove the batteries and place them in the correct container.

H.9 - UNAIDED AND AIDED FLIGHT ROUTES AND REQUIREMENTS

H.9.1 - GENERAL

Common Advisory Frequencies will be used in approved training areas to enhance aircraft avoidance. ATC will provide separation for aircraft in Los Alamitos Airport Traffic Area and during operations in the Airport Radar Service Area.

H.9.2 - DEPARTURE ROUTES.

Katella Departure - Aircraft will depart on the Katella Route as published in AFRC Reg 95-1. Aircraft will maintain 1,500 feet MSL until reaching the release point. Aircraft will remain sough of Katella Blvd by a minimum of 200 meters. At Anaheim Stadium aircraft will cross the river and turn left, staying to the right side of the river. Aircraft will then change to the appropriate

advisory frequency before reaching Gypsum Canyon (305.9 - identified by the open pit mine and the large yellow lights). This is the release point for entrance into the MAL Site area.
Class C Departure - Aircraft will make a Class C departure with routing direct to either Lake Irvine or Sitton Peak. Aircraft will not descend prior to having at least one radio tuned to the appropriate common traffic advisory frequency.

H.9.3 - ARRIVAL ROUTES.

Katella Arrival - For the purpose of this SOP the Katella Route begins at Gypsum Canyon. Aircraft outbound from the training area will remain on the right side of Gypsum Canyon. Aircraft will cross Gypsum Canyon checkpoint at 1,700 feet MSL. At the checkpoint the aircraft will cross the river and turn left, remaining on the right side of the river until able to proceed direct to Disneyland. Aircraft will then contact Los Alamitos Tower and descend to 1,500 feet MSL and comply with AFRc Reg 95-1.
Class C Arrival - Aircraft will climb up from the training area and contact approach control and request radar advisories.

H.10 - IIMC

- There is no approved VHIRP for any training area.
- In the event of Inadvertent IMC, the pilot on the controls will announce that the aircraft is IMC and transition to the instruments.
- The pilot on the controls (P*) act as follows:
  a. Level the aircraft.
  b. Maintain heading or turn only to avoid known obstacles.
  c. Adjust to maximum climb torque, as required.
  d. Adjust to climb airspeed.
  e. Climb to at least 7,000 feet MSL.
  f. If NVG, flip up goggles at earliest convenience.
- The crew member not on the controls acts as follows:
  a. Confirm the aircraft is IMC.
  b. If NVG, flip up goggles.
  c. Make radio calls advising other aircraft your aircraft is IMC.
  d. Monitor instruments to ensure the P* is not spatially disoriented.
  e. Squawk 7,700.
  f. Coordinate with ATC on the appropriate Guard frequency for emergency instructions (121.5 or 243.0).

H.11 - WEATHER REQUIREMENTS

H.11.1 - UNAIDED.

- Night special VFR departures are not authorized without specific approval from the Briefing Officer.
- Training. When weather conditions are less than ideal for the type of training being conducted, the IP in conjunction with the Briefing officer, will determine whether or not the weather will interfere with safe, efficient training.

H.11.2 - AIDED.

- NVG training will not be conducted in the training areas when forecast or known weather conditions for the time of the flight thru one hour after the completion of the flight is less than 1,500 feet ceiling and three miles visibility. An exception to this requirement is when operating in the traffic pattern at Los Alamitos Army Airfield.
- During NVG qualification, refresher, or mission training the Briefing Officer should take special consideration if known or forecast winds are in excess of 20 KTS.

H.12 - AUTHORIZED SUPPLEMENTAL LIGHT SOURCES

H.12.1 - CREW MEMBERS.

- **Unaided -**The PC is the final authority depending on mission requirements as to the type of filters that are required on the lights.
- **Aided -** Blue-green lights are the only authorized lighting to be used during NVG operations. Lip lights, finger lights, chem light sticks or other devices that are blue-green and do not interfere with mission accomplishment may be used at the PC's discretion. NVG supplemental lighting does not meet the flash light requirements of AR 95-1. White or red flash lights may not be used except for ground operations or in the cargo compartments of utility and cargo helicopters at the discretion of the PC. Lighting will conform with any applicable NVG messages.

H.12.2 - AIRCRAFT.

- An infrared band-pass filter/pink light modified search/landing light must be installed and operational prior to NVG operations. If the IR band pass filter/pink light becomes inoperable during a mission the PC will evaluate the impact on the mission accomplishment. The PC's actions may vary from a minor mission adjustment to termination of the mission.
- Anti-collision lights and position lights, on steady bright, will be on at all times above 200 feet AHO. Below 200 feet AHO, while in the approved training area, position lights may be on steady dim, and anti-collision light may be turned off.
- Unless superseded by regulation, red or white lighting of any radio control pane, instrument, switch panel, master caution, or other interior light must be taped, filtered, or be turned off during NVG operations to eliminate effects of red or white lights.

H.12.3 - AIRPORT, HELIPORT, LZS.

- **Unaided -** Any lighting that illuminates the intended landing area sufficiently can be used.
- **Aided -** Any type lighting that does not interfere with NVG operations may be used at the discretion of the PC while conducting NVG operations in the field. Operations at brightly lit locations can be used at the discretion of the PC.

H.13 - MULTI-SHIP OPERATIONS

- Multi-ship operations conducted in the training area will have a limit of six assigned aircraft (four aircraft during AFTPs unless unit Battle Drill) in the confines of the training area.
- Separation of aided and unaided traffic in the training area will be maintained by use of the common advisory frequency.

- Multi-ship formation flight procedures will be IAW TC 1-204 and current TWXs or regulations and unit SOPs.
- The MALS are also used by the USMC and Navy. Caution should be exercised and full lighting should be used except at Blackstar.

H.14 - AIDED AND UNAIDED FARRP OPERATIONS

All night FARRP operations will be IAW unit SOPs.

H.15 - REPORTING PROCEDURES

- **Training Area -** A position report will be completed every thirty minutes during unaided and every fifteen minutes during aided flight to Guard Operations, Base Operations, or a buddy bird. If at any time contact cannot be maintained, use alternate methods; different frequencies, relay thru other aircraft, etc. In the event that contact cannot be made, cease NVG operations.
- **Local/Cross Country -** Maintain appropriate flight following and VFR position reports with ATC/FSS.

H.16 - CREW ENDURANCE PROCEDURES

- The crew endurance requirements in AR 95-3 will be followed.
- Crew members are responsible for maintaining their crew endurance requirements.
- Also, refer to Annex III to Chapter 5 of this SOP.

H.17 - AIRCRAFT LIGHTING CONFIGURATIONS

- Anti-collision lights and position lights, on steady bright, will be on at all times above 200 feet AHO. Below 200 feet AHO, while in the approved training area, at a minimum, position lights will be on steady dim.
- Lights-out operation will only be conducted below 200 feet AGL by formation flights. The tail aircraft will be the observer aircraft and will have position lights on steady bright and the anti-collision light on.

H.18 - ADDITIONAL CREW MEMBER REQUIREMENTS

The stated procedure in TC 1-210, Commander's Guide, Chapter 4, para 4-12, will be followed.

H.19 - VISUAL/RADIO NIGHT SIGNALS

- Emergency light signals for inoperative radio equipment or other emergencies that cannot be transmitted over the radio will be as per DOD FLIP Flight Information Handbook.For multi-aircraft operations emergency visual and light signals for tactical operations will be as follows:
    - For training, the affected aircraft will go to trail formation and flash position lights for one minute. Training will terminate.
    - On missions, affected aircraft will do the same as in training. The Air Mission Commander will brief the flight prior to the mission if this situation will terminate the mission.